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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/584,162

02/21/2007

Reinhard Heyder

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11/12/2008

BSH HOME APPLIANCES CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
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EXAMINER

GRAVINI, STEPHEN MICHAEL

ART UNIT

PAPER NUMBER

3743

MAIL DATE

DELIVERY MODE

11/12/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/584,162

Applicant(s)

HEYDER ET AL.

Examiner

Stephen M. Gravini

Art Unit

3743

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 February 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date 20060622
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Mahan (US 4,510,361). The claims are reasonably and broadly construed, as being disclosed by Mahan for comprising:

dryer **10** with a housing **20**, a rotary drum **32** for receiving laundry and a bearing **42** for the rotary mounting of the drum in the housing, and with a bracket **52** secured to the housing, and with a cooling device **68** for cooling the bearing, comprising a cooling air conduit **72**, wherein a process air conduit **54**, comprising an air distribution hood adjacent to the bearing as shown in figure 2, which hood covers process air inlet holes in the drum, herein the cooling air conduit is formed between the bracket and the air distribution hood in the form of an annular gap, wherein the gap is formed from the bracket and the air distribution hood as shown in figure 4. Mahan also discloses the claimed annular gap arranged around the bearing as shown in figure 2, wherein the cooling device comprise means for improving the radiation or convection of heat from the bearing and/or from the area adjacent to the bearing, and/or wherein cooling faces are provided which are thermally and conductively connected to the bearing, and

wherein the cooling device has a device for feeding cooling air, preferably ambient air, to the bearing as shown in figure 4.

Claims 20-21 and 24-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Flora et al. (US 3,060,593). The claims are reasonably and broadly construed, as being disclosed by Flora for comprising:

a housing **10**,

a drum **22** disposed within the housing;

a bearing **80** supporting the drum for rotational movement with respect to the housing;

a process air conduit **115** disposed in the housing and including a fan **82** generating a process air flow within the housing;

an air distribution hood **118** directing the process air flow from the process air conduit into the drum;

a bracket **146** connected to the housing and supporting the bearing; and
an annular gap **78** disposed between the bracket and the air distribution hood, the annular gap receiving a cooling air flow of ambient air from outside the process air conduit to cool the bearing as shown in figure 3. Flora also discloses the claimed bracket extends radially outwardly from the bearing as shown in figure 1, wherein the process air conduit includes a heater **90** heating the process air flow upstream of the air distribution hood, wherein the laundry dryer comprises an exhaust dryer including an inlet opening receiving an air flow into the process air conduit and an exhaust for discharging the process air flow out of the housing as shown in figure 1, wherein the

annular gap discharges the cooling air flow into the air distribution hood and the cooling air flow mixes with the process air flow as shown in figure 3, wherein the cooling air flow enters the annular gap from a radially outer end and flows radially inwardly toward the bearing.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mahan in view of McCormick (US 2,752,694). Mahan discloses the claimed invention, as rejected above, except for the claimed condenser. McCormick, another laundry dryer, discloses a condenser at column 4 lines 40-62. It would have been obvious to one skilled in the art to combine the teachings of Mahan with the condenser features of McCormick, to allow a great means of cooling by using condensation to optimize bearing temperatures for efficient use of energy to dry clothes.

Claims 22-23 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flora in view of McCormick. Flora discloses the claimed invention, as rejected above, except for the claimed condenser. McCormick, another laundry dryer, discloses a condenser at column 4 lines 40-62. It would have been obvious to one skilled in the art to combine the teachings of Flora with the condenser features of McCormick, to allow a great means of cooling by using condensation to optimize bearing temperatures for efficient use of energy to dry clothes. Furthermore, Flora discloses the claimed invention, except for the claimed thermally conductive material or metal material. It would have been an obvious matter of design choice to recite those types of materials, since the teachings of Flora would perform the invention as claimed regardless of the type of material.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Gravini whose telephone number is 571 272 4875. The examiner can normally be reached on normal weekday business hours (east coast time).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth B. Rinehart can be reached on 571 272 4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

November 7, 2008
/Stephen M. Gravini/
Primary Examiner, Art Unit 3743